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<110> DeveloGen AG für entwicklungsbiologische Forschung

<120> Use of a DG065 secreted protein product for preventing
and treating pancreatic diseases and/or obesity and/or
metabolic syndrome

<130> 31362PWO_GE

<140> PCT/EP2004/007916

<141> 2004-07-15

<150> 03016171.5

<151> 2003-07-16

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<151> 2003-07-22

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<151> 2003-08-12

<160> 20

<170> PatentIn Ver. 2.1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

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<222> (1)..(2808)

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<210> 6

<211> 313

<212> PRT

<213> human

<220>

<223> amino acid sequence of human DG210 protein

<400> 6

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Tyr Asp Tyr	Val Ser Phe Gln Ser	Asp Ile Gly Pro Tyr	Gln Ser Gly
	35	40	45
Arg Phe Tyr	Thr Lys Pro Pro	Gln Cys Val Asp Ile	Pro Ala Asp Leu
	50	55	60
Arg Leu Cys	His Asn Val Gly Tyr	Lys Lys Met Val Leu	Pro Asn Leu
	65	70	75
Leu Glu His	Glu Thr Met Ala	Glu Val Lys Gln Gln	Ala Ser Ser Trp
	85	90	95
Val Pro Leu	Leu Asn Lys Asn Cys	His Ala Gly Thr Gln	Val Phe Leu
	100	105	110
Cys Ser Leu	Phe Ala Pro Val	Cys Leu Asp Arg Pro	Ile Tyr Pro Cys
	115	120	125
Arg Trp Leu	Cys Glu Ala Val	Arg Asp Ser Cys Glu	Pro Val Met Gln
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Phe Phe Gly	Phe Tyr Trp Pro	Glu Met Leu Lys Cys	Asp Lys Phe Pro
	145	150	155
Glu Gly Asp	Val Cys Ile Ala	Met Thr Pro Pro	Asn Ala Thr Glu Ala
	165	170	175
Ser Lys Pro	Gln Gly Thr Thr	Val Cys Pro Pro	Cys Asp Asn Glu Leu
	180	185	190
Lys Ser Glu	Ala Ile Ile Glu	His Leu Cys Ala	Ser Glu Phe Ala Leu
	195	200	205
Arg Met Lys	Ile Lys Glu Val	Lys Lys Glu Asn Gly	Asp Lys Lys Ile
	210	215	220
Val Pro Lys	Lys Lys Lys Lys	Pro Leu Lys Leu Gly	Pro Ile Lys Lys Lys
	225	230	235
Asp Leu Lys	Lys Leu Val Leu	Tyr Leu Lys Asn Gly	Ala Asp Cys Pro
	245	250	255
Cys His Gln	Leu Asp Asn Leu	Ser His His Phe	Leu Ile Met Gly Arg
	260	265	270
Lys Val Lys	Ser Gln Tyr Leu	Leu Thr Ala Ile	His Lys Trp Asp Lys
	275	280	285
Lys Asn Lys	Glu Phe Lys Asn	Phe Met Lys Lys	Met Lys Asn His Glu
	290	295	300
Cys Pro Thr	Phe Gln Ser Val	Phe Lys	
	305	310	

<210> 7
<211> 2178
<212> DNA
<213> human

<220>
<221> gene
<222> (1)..(2178)
<223> nucleic acid sequence encoding human DG239 protein

<400> 7
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<210> 8
<211> 593
<212> PRT
<213> human

<220>
<223> amino acid sequence of human DG239 protein

<400> 8
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Asp	Pro	Gly	Gly	Ala	Ser	Tyr	Ser	Cys	Cys	Arg	Pro	Leu	Leu	Asp	Lys	35	40	45
Trp	Pro	Thr	Thr	Leu	Ser	Arg	His	Leu	Gly	Gly	Pro	Cys	Gln	Val	Asp	50	55	60
Ala	His	Cys	Ser	Ala	Gly	His	Ser	Cys	Ile	Phe	Thr	Val	Ser	Gly	Thr	65	70	75
Ser	Ser	Cys	Cys	Pro	Phe	Pro	Glu	Ala	Val	Ala	Cys	Gly	Asp	Gly	His	85	90	95
His	Cys	Cys	Pro	Arg	Gly	Phe	His	Cys	Ser	Ala	Asp	Gly	Arg	Ser	Cys	100	105	110
Phe	Gln	Arg	Ser	Gly	Asn	Asn	Ser	Val	Gly	Ala	Ile	Gln	Cys	Pro	Asp	115	120	125
Ser	Gln	Phe	Glu	Cys	Pro	Asp	Phe	Ser	Thr	Cys	Cys	Val	Met	Val	Asp	130	135	140
Gly	Ser	Trp	Gly	Cys	Cys	Pro	Met	Pro	Gln	Ala	Ser	Cys	Cys	Glu	Asp	145	150	155
Arg	Val	His	Cys	Cys	Pro	His	Gly	Ala	Phe	Cys	Asp	Leu	Val	His	Thr	165	170	175
Arg	Cys	Ile	Thr	Pro	Thr	Gly	Thr	His	Pro	Leu	Ala	Lys	Lys	Leu	Pro	180	185	190
Ala	Gln	Arg	Thr	Asn	Arg	Ala	Val	Ala	Leu	Ser	Ser	Ser	Val	Met	Cys	195	200	205
Pro	Asp	Ala	Arg	Ser	Arg	Cys	Pro	Asp	Gly	Ser	Thr	Cys	Cys	Glu	Leu	210	215	220
Pro	Ser	Gly	Lys	Tyr	Gly	Cys	Cys	Pro	Met	Pro	Asn	Ala	Thr	Cys	Cys	225	230	235
Ser	Asp	His	Leu	His	Cys	Cys	Pro	Gln	Asp	Thr	Val	Cys	Asp	Leu	Ile	245	250	255
Gln	Ser	Lys	Cys	Leu	Ser	Lys	Glu	Asn	Ala	Thr	Thr	Asp	Leu	Leu	Thr	260	265	270
Lys	Leu	Pro	Ala	His	Thr	Val	Gly	Asp	Val	Lys	Cys	Asp	Met	Glu	Val	275	280	285
Ser	Cys	Pro	Asp	Gly	Tyr	Thr	Cys	Cys	Arg	Leu	Gln	Ser	Gly	Ala	Trp	290	295	300
Gly	Cys	Cys	Pro	Phe	Thr	Gln	Ala	Val	Cys	Cys	Glu	Asp	His	Ile	His	305	310	315
Cys	Cys	Pro	Ala	Gly	Phe	Thr	Cys	Asp	Thr	Gln	Lys	Gly	Thr	Cys	Glu	325	330	335

Gln	Gly	Pro	His	Gln	Val	Pro	Trp	Met	Glu	Lys	Ala	Pro	Ala	His	Leu
			340					345					350		
Ser	Leu	Pro	Asp	Pro	Gln	Ala	Leu	Lys	Arg	Asp	Val	Pro	Cys	Asp	Asn
		355					360					365			
Val	Ser	Ser	Cys	Pro	Ser	Ser	Asp	Thr	Cys	Cys	Gln	Leu	Thr	Ser	Gly
	370					375					380				
Glu	Trp	Gly	Cys	Cys	Pro	Ile	Pro	Glu	Ala	Val	Cys	Cys	Ser	Asp	His
385					390					395					400
Gln	His	Cys	Cys	Pro	Gln	Gly	Tyr	Thr	Cys	Val	Ala	Glu	Gly	Gln	Cys
				405					410					415	
Gln	Arg	Gly	Ser	Glu	Ile	Val	Ala	Gly	Leu	Glu	Lys	Met	Pro	Ala	Arg
			420					425					430		
Arg	Ala	Ser	Leu	Ser	His	Pro	Arg	Asp	Ile	Gly	Cys	Asp	Gln	His	Thr
		435					440					445			
Ser	Cys	Pro	Val	Gly	Gln	Thr	Cys	Cys	Pro	Ser	Leu	Gly	Gly	Ser	Trp
	450					455					460				
Ala	Cys	Cys	Gln	Leu	Pro	His	Ala	Val	Cys	Cys	Glu	Asp	Arg	Gln	His
465					470					475					480
Cys	Cys	Pro	Ala	Gly	Tyr	Thr	Cys	Asn	Val	Lys	Ala	Arg	Ser	Cys	Glu
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Lys	Glu	Val	Val	Ser	Ala	Gln	Pro	Ala	Thr	Phe	Leu	Ala	Arg	Ser	Pro
			500					505					510		
His	Val	Gly	Val	Lys	Asp	Val	Glu	Cys	Gly	Glu	Gly	His	Phe	Cys	His
		515					520					525			
Asp	Asn	Gln	Thr	Cys	Cys	Arg	Asp	Asn	Arg	Gln	Gly	Trp	Ala	Cys	Cys
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Pro	Tyr	Arg	Gln	Gly	Val	Cys	Cys	Ala	Asp	Arg	Arg	His	Cys	Cys	Pro
545					550					555					560
Ala	Gly	Phe	Arg	Cys	Ala	Ala	Arg	Gly	Thr	Lys	Cys	Leu	Arg	Arg	Glu
				565					570					575	
Ala	Pro	Arg	Trp	Asp	Ala	Pro	Leu	Arg	Asp	Pro	Ala	Leu	Arg	Gln	Leu
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Leu

<210> 9

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer 5'-3

<220>
 <223> mouse DG008 forward primer

 <400> 9
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 <210> 10
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer'5'-3

 <220>
 <223> mouse DG008 reverse primer

 <400> 10
 gtttgcgcggt tggtagga 19

 <210> 11
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: probe

 <220>
 <223> mouse DG008 Taqman probe

 <400> 11
 cgcgaccgtg tccacttcct atgtg 25

 <210> 12
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer'5'-3

 <220>
 <223> mouse DG065 forward primer

 <400> 12
 ggatactgct ggtgtgtgct agtg 24

 <210> 13
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: primer `5-3

 <220>

<223> mouse DG065 reverse primer
 <400> 13
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 <210> 14
 <211> 22
 <212> DNA
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 <223> Description of Artificial Sequence: probe
 <220>
 <223> mouse DG065 Taqman probe
 <400> 14
 aactggacg gcccatcct gg 22
 <210> 15
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: primer `5-3
 <220>
 <223> mouse DG210 forward primer
 <400> 15
 cgagccggtc atgcagtt 18
 <210> 16
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 <212> DNA
 <213> Artificial Sequence
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 <223> Description of Artificial Sequence: primer`5`-3
 <220>
 <223> mouse DG210 reverse primer
 <400> 16
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 <210> 17
 <211> 26
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<400> 17
actggcccga gatgctcaaa tgtgac 26

<210> 18
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer 5'-3

<220>
<223> mouse DG239 forward primer

<400> 18
ttcacacacg atgcgtttca c 21

<210> 19
<211> 21
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer 5'-3

<220>
<223> mouse DG239 reverse primer

<400> 19
cctgttggtc ttttgtgcag g 21

<210> 20
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: probe

<220>
<223> mouse DG239 Taqman probe

<400> 20
acgggcaccc acaccctact aaagaagtt 29